

L Number	Hits	Search Text	DB	Time stamp
1	1	fujita and (automatic with soldering with level with adjusting with device)	JPO	2004/06/28 11:25
2	2543	438/15,111,118,123,782.ccls. and @ad<20010829	USPAT; US-PGPUB	2004/06/28 11:27
3	304	(438/15,111,118,123,782.ccls. and @ad<20010829) and (molten or viscous)	USPAT; US-PGPUB	2004/06/28 11:27

PAT-NO: JP402037964A  
DOCUMENT-IDENTIFIER: JP 02037964 A  
TITLE: AUTOMATIC SOLDERING LEVEL ADJUSTING  
DEVICE  
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INT-CL (IPC): B23K003/06, G05D009/12 , H05K003/34  
US-CL-CURRENT: 219/85.19

ABSTRACT:

PURPOSE: To automatically adjust a molten solder level by monitoring a change in the level at all times and inputting a detection signal from a laser transmitter/receiver to a control device when the level change arises.

CONSTITUTION: The molten solder surface 18 of a solder tank 14 is irradiated with laser rays from the laser transmitter/receiver 8 and the reflected rays are received by the laser transmitter/receiver 8, by which the change arising from the change in the molten solder level is detected.

This signal is transmitted through a circuit 11 to the control device 10 and further, the control device 20 controls a servo motor driving device 23 in the direction of restoring the level change in accordance with the position signal from the laser transmitter/ receiver 8 to rotate a servo motor in the prescribed direction and to simultaneously rotate a feed screw shaft 26 as well. A leveling block 25 is moved as the feed screw shaft 26 rotates. The solder tank 14 moves upward and downward simultaneously as well and the molten solder level is automatically adjusted in this way.

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